Control/Tracking Number: 06-A-427-ICEID
Activity: ICEID Abstract
Current Date/Time: 11/30/2005 9:07:54 AM

Changes in incidence of foodborne outbreaks reported to eFORS by FoodNet sites, 1998-2004

Author Block: K. E. Fullerton[1], D. Vugia[2], A. Cronquist[3], Q. Phan[4], C. Burnett[5], K. Larson[6], E. S. Laine[7], D. Nicholas[8], W. Keene[9], T. F. Jones[10], C. Braden[11], O. Henao[1];

[1]Centers for Disease Control and Prevention and Atlanta Research and Education Foundation, Atlanta, GA, [2]CA Dept of Health Services, Richmond, CA, [3]CO Dept of Public Health and Envr, Denver, CO, [4]CT EIP, New Haven, CT, [5]GA Div Public Health, Atlanta, GA, [6]MD Dept of Health, Baltimore, MD, [7]MN Dept of Health, St. Paul, MN, [8]NYS Dept of Health, Albany, NY, [9]OR Dept of Human Services, Portland, OR, [10]TN Dept of Health, Nashville, TN, [11]Centers for Disease Control and Prevention, Atlanta, GA.

Background: The Foodborne Diseases Active Surveillance Network (FoodNet) has documented substantial declines in the incidence of several bacterial infections that are commonly transmitted through food (*E. coli* O157, *Campylobacter,* and *Listeria monocytogenes)*. We investigated whether these trends might also be evident in the incidence of foodborne disease outbreaks.
Methods: We used data reported to CDC's electronic Foodborne Outbreak Reporting System (eFORS) from FoodNet sites for outbreaks involving ≥5 persons. Multistate outbreaks were not included in our analysis. Negative binomial regression was used to examine changes over time in the incidence of reported foodborne outbreaks with a bacterial, viral, and undetermined etiology.
Results: From 1998 to 2004, FoodNet sites reported 1227 outbreaks involving ≥ 5 persons to eFORS. Of 655 outbreaks with confirmed etiology, 198 (30%) were bacterial and 372 (57%) were viral. Of the bacterial outbreaks, the etiologies were: 139 (70%) *Salmonella*, 28 (14%) Shiga toxin-producing *E. coli*, 14 (7%) *Shigella*, 11 (6%) *Campylobacter*, 3 (2%) *Yersinia*, 2 (1%) *Vibrio*, and 1 (0.5%) *Listeria*. There were 27 reported bacterial outbreaks in 2004 (0.61 cases per 100,000 persons), compared to 20 reported bacterial outbreaks in 1998 (0.97 cases per 100,000 persons), a 20% decrease in incidence. However, the number of reported outbreaks was not sufficient for this decrease to be statistically significant or to model the change in incidence of outbreaks due to specific bacterial pathogens. From 1998 to 2004 there was a 312% increase in incidence of viral outbreaks, and a simultaneous 54% decrease in incidence in outbreaks with undetermined etiology.
Conclusions: While there was a downward trend in reported bacterial outbreaks, further study is needed to better understand this in the context of significant declines in the overall incidence of several important bacterial pathogens during the same time period. The coincident increase in reported viral outbreaks and decrease in reported outbreaks of undetermined etiology is likely a consequence of the increased availability of viral diagnostics.

Category (Complete): K. Foodborne infections
Presentation Preference (Complete): Oral or Poster
Status: Complete